## AMENDMENTS TO THE CLAIMS

Claims 1 - 11. (Cancelled)

12. (Previously Presented) A system comprising:

a first computer means coupled to a network means; and

a second computer means coupled to said network means, said second computer means configured to produce a graphical environment, wherein said graphical environment is based, at least in part, on information transferred from said first computer means to said second computer means over said network means, and human/computer interface means, wherein said human/computer interface means comprises an actuator means, said second computer means further comprising means for interpreting said information repeatedly received from said first computer means over said network means, updating said graphical environment based, at least in part, on said information, and causing said actuator to generate a physical feel sensation at said human/computer interface means based, at least in part, on said information.

13. (Previously Presented) A system as recited in claim 12 wherein said second computer means input comprises at least one of a position input for said human/computer interface device, and a button click input.

14. (Previously Presented) A system as recited in claim 12 wherein said human/computer interface means coupled to said second computer means includes a local controller means that communicates with said second computer means, a plurality of said actuator means for providing said physical feel sensations.

15. (Previously Presented) A system as recited in claim 14 wherein said second computer means sends a force feedback command to said local controller means that can be parsed by said local controller means such that said controller means can control said actuator means in response to said force feedback command in a control loop with said sensor means.

Claim 16. (Cancelled)

17. (Previously Presented) A method for providing haptic feedback, comprising:

receiving a first computer information from a first computer at a second computer over a network, wherein said first computer information comprises information representing a position of a manipulandum,

generating a graphical environment;

receiving an input information at said second computer from a haptic feedback device; and

causing a haptic feedback signal to be provided to said haptic feedback device from said second computer, said haptic feedback signal being based, at least in part, on said first computer information and said input information, wherein said haptic feedback signal causes said haptic feedback device to output haptic feedback.

18. (Previously Presented) A method as recited in claim 17 wherein said first computer information includes haptic feedback information indicating a tactile sensation to be output by said second haptic feedback device.

19. (Previously Presented) A method as recited in claim 17 further comprising sending second computer information from said second computer to said first computer over said network.

20. (Previously Presented) A method as recited in claim 19 wherein said second computer information includes said input information from said second haptic feedback device and haptic feedback information indicating a tactile sensation to be output by said first haptic feedback device.

21. (Previously Presented) A method as recited in claim 17 wherein said graphical environment includes a first graphical object controlled by a user of said first haptic feedback device, and a second graphical object controlled by a user of said second haptic feedback device.

22. (Original) A method as recited in claim 21 wherein said first and second graphical objects are paddles.

23. (Original) A method as recited in claim 21 wherein said first and second graphical objects are displayed in a web page.

Claim 24. (Cancelled)

25. (Previously Presented) A method as recited in claim 17 wherein said second haptic feedback device includes a local controller that communicates with said second computer, wherein said local controller parses a haptic feedback command sent by said second computer such that said local haptic can control said actuator in response to said haptic feedback command in a control loop with at least one sensor of said second haptic feedback device.

Claims 26-35. (Cancelled)

36. (Previously Presented) A method as recited in claim 38 wherein said first computer receives a first input information from said first haptic feedback device in response to a manipulation of said first haptic feedback device, and wherein said second computer receives a second input information from said second haptic feedback device in response to a manipulation of said second haptic feedback device.

37. (Previously Presented) A method as recited in claim 36 wherein said haptic feedback signal from said first computer and said second computer is based, at least in part, on said input information from said first haptic feedback device and said second haptic feedback device, respectively.

38. (Previously Presented) A method for providing haptic feedback between a first computer and a second computer comprising:

sending a first computer information to said second computer over a network, wherein said first computer information comprises a position of a manipulandum of a first haptic feedback device;

causing a first haptic feedback signal to be sent to a second haptic feedback device from said second computer, said first haptic feedback signal being based, at least in part, on said first computer information, wherein said first haptic feedback signal causes said second haptic feedback device to output a haptic sensation;

sending a second computer information to said first computer over said network, wherein said second computer information comprises a position of a manipulandum of a second haptic feedback device; and

causing a second haptic feedback signal to be sent to said first haptic feedback device from said first computer, said second haptic feedback signal being based, at least in part, on said second computer information, wherein said haptic feedback signal causes said first haptic feedback device to output a haptic sensation.

39. (Previously Presented) A method as recited in claim 38 wherein said first computer information includes haptic feedback information indicating a tactile sensation to be output by said second haptic feedback device, and wherein said second computer information includes haptic feedback information indicating a tactile sensation to be output by said second haptic feedback device.

40. (Previously Presented) A method as recited in claim 39 wherein said first computer and said second computer each produce a graphical environment having a first graphical object controlled by a first user and a second graphical object controlled by a second user.

Claim 41. (Cancelled)

42. (Previously Presented) A method as recited in claim 38 further comprising accessing a server computer with one of said first and second computers and downloading a feel sensation information from said server computer, said feel sensation information to be included in said first computer information or said second computer information.

43. (Previously Presented) A method as recited in claim 42 wherein said server computer provides a web page to said computer accessing said server, said web page including an embedded feel sensation information.

Claims 44-57 (Cancelled)

58. (Previously Presented) A method for providing haptic feedback comprising:

receiving a first computer information from a first computer at a server computer over a network;

providing said first computer information to a second computer, wherein said first computer information comprises information operable to update a simulated graphical object in a graphical environment output by said second computer, and wherein at least one of said second computer and said server computer uses said first computer information to update a game program running on at least one of said second computer and said server computer, and wherein said second computer provides a second haptic feedback signal based at least in part on said first computer information to a second haptic feedback device;

receiving a second computer information from said second computer over said network; and

providing said second computer information to said first computer, wherein said second computer information comprises information operable to update a simulated graphical object in a graphical environment output by said first computer, and wherein at least one of said first computer and said server computer uses said second computer information to update a game program running on at least one of said first computer and said server computer, and wherein said first computer provides a first haptic feedback signal based at least in part on said second computer information to a first haptic feedback device.

59. (Previously Presented) A method as recited in claim 58 wherein said first computer information includes force information describing a tactile sensation, wherein said tactile sensation is output by said second haptic feedback device.

60. (Previously Presented) A method as recited in claim 58 further comprising sending tactile sensation data stored on said server computer to said first computer.

61. (Previously Presented) A method as recited in claim 58 wherein said first computer information comprises position data allowing said second computer to display a graphical object in said graphical environment output by said second computer.

62. (Previously Presented) A method as recited in claim 58 wherein said server computer runs a web page.

63. (Previously Presented) A method as recited in claim 58 wherein updating said game program running on said first computer includes updating a location of a displayed player graphical object based at least in part on said second computer information.

64. (Previously Presented) A method as recited in claim 58 wherein said updating of said game program running on said first computer includes updating a location of a projectile.

65. (Previously Presented) A method as recited in claim 64 wherein said projectile is a ball or a puck.

66. (Previously Presented) A method as recited in claim 63 wherein said displayed player graphical object represents a sporting object.

67. (Previously Presented) A method as recited in claim 66 wherein said displayed player graphical object includes a weapon.

68. (Previously Presented) A method as recited in claim 63 wherein a collision between said player graphical object and a different graphical object is detected, and wherein said first haptic feedback signal is based at least in part on said detected collision.

69. (Previously Presented) A method as recited in claim 68 wherein said different graphical object is a projectile.

70. (Previously Presented) A method as recited in claim 68 wherein said different graphical object is an obstruction in said game environment.

Claim 71. (Cancelled)

72. (Previously Presented) A method as recited in claim 75 wherein said first computer is a client computer and said second computer is a server computer.

73. (Previously Presented) A method as recited in claim 75 wherein said first computer and said second computer are client computers.

74. (Previously Presented) A method as recited in claim 75 wherein said first information received from said second computer includes web page information.

75. (Previously Presented) A method for providing haptic feedback over a computer network comprising:

receiving a first information over a network, said first information comprising haptic feedback information and position information for a graphical object displayed by said second computer;

using said first information to update a visual display

providing a haptic feedback signal based at least in part on said haptic feedback information to a haptic feedback device, wherein said haptic feedback device outputs a tactile sensation based, at least in part, on said haptic feedback signal and correlated with said updated visual display; and

sending a second information over said network.

76. (Previously Presented) A method as recited in claim 73 wherein said haptic feedback device is a first haptic feedback device, and wherein said second computer includes a second

haptic feedback device providing computer-controlled physical tactile sensations to a user of said second haptic feedback device.

Claim 77. (Cancelled)

78. (Previously Presented) A method as recited in claim 75 wherein said visual display is updated by moving a graphical object within a graphical game environment based, at least in part, on position data received from said haptic feedback device, where a collision between said graphical object and a different graphical object can detected to cause said tactile sensation to be output.

79. (Previously Presented) A method as recited in claim 75 wherein said first computer receives an indication of a gaming event in said first information, said first computer synchronizing said visual display associated with said gaming event with said tactile sensation that is associated with said gaming event.

80. (Previously Presented) A method as recited in claim 79 wherein said gaming event is a collision.

81. (Previously Presented) A method as recited in claim 79 wherein said gaming event is an explosion.

82. (Previously Presented) A method as recited in claim 79 wherein said visual display is updated at a rate substantially faster than said tactile sensation.

Claims 83-91. (Cancelled)

92. (Previously Presented) A method as recited in claim 101 wherein said local model of said particular client computer also receives button data from said associated haptic feedback device, said button data describing a state of at least one button on said associated haptic feedback device.

93. (Previously Presented) A method as recited in claim 101 wherein said first graphical object is a representation of sporting equipment.

94. (Previously Presented) A method as recited in claim 93 wherein said second graphical object is a representation of a ball or puck.

95. (Previously Presented) A method as recited in claim 101 wherein said first graphical object includes a representation of a weapon.

96. (Previously Presented) A method as recited in claim 101 wherein each of said local models of said computer-gaming simulation of said multiple client computers displays a graphical object having a location influenced by position data received from an associated interface device in communication with each client computer.

Claim 97. (Cancelled)

98. (Previously Presented) A method as recited in claim 101 wherein a sound is associated with an event occurring in said computer-gaming simulation, wherein said computer synchronizes an output of said sound with said tactile sensation that is associated with said event.

99. (Previously Presented) A method as recited in claim 98 wherein said event is a collision in said computer-gaming simulation.

100. (Previously Presented) A method as recited in claim 98 wherein said event is an explosion in said computer-gaming simulation.

101. (Previously Presented) A method comprising:

executing a first local model of a computer-gaming simulation on a first computer in communication with a network;

executing, substantially simultaneously with said first local model, a second local model of said computer-gaming simulation on a second computer in communication with said first computer over said network;

updating a location of a first graphical object of said first local model based at least in part on position data output by a sensor in communication with a haptic input device in communication with said first computer, said haptic input device comprising an actuator configured to output haptic feedback to said haptic input device;

updating a location of a second graphical object based at least in part on information received over said Internet from said second network interface of said second computer, said information comprising a gaming event; and

determining, by said first computer, whether said first graphical object and said second graphical object interact, and, if so:

determining a haptic effect to be output, and

outputting said haptic effect to said haptic input device, said haptic effect configured to be substantially synchronized with said gaming event.

102. (Currently Amended) A system comprising:

a first computer, said first computer comprising:

a first processor in communication with a network,

a first memory coupled to said first processor,

a first force feedback device in communication with said first processor, said first force feedback device configured to provide a first input signal, said first force feedback device coupled to a first actuator, said first actuator configured to provide tactile sensations in response to a first haptic feedback signal, and

wherein said first processor is configured to:

produce a first image, and

provide said first haptic feedback signal to said first force feedback device, said first image and said first haptic feedback signal based at least in part on a first information received from a second computer over said network and based at least in part on said first input signal; and

said second computer comprising:

a second processor,

in communication with a network,

a second memory coupled to said second processor,

a second force feedback device coupled to said second processor, said second force feedback device configured to provide a second input signal, said second force feedback device coupled to a second actuator, said second actuator configured to provide a tactile sensation in response to a second haptic feedback signal, and

wherein said second processor is configured to:

produce a second image, and

provide said second haptic feedback signal to said second interface device, said second image and said second haptic feedback signal based at least in part on a second information received from said first computer over said network and based at least in part on said second input signal.

103. (Currently Amended) A system comprising:

a first computer, comprising:

a first processor capable of generating a first image signal,

said first processor in communication with a network,

a first force feedback device capable of providing a first input signal, comprising:

a first actuator configured to provide tactile sensations in response to a first haptic feedback signal, and

said first image signal and said first haptic feedback signal based at least in part on a first information received from a second computer over said network and based at least in part on said first input signal; and

said second computer, comprising:

a second processor capable of generating a second image signal,

said second processor in communication with said network,

a second force feedback device capable of providing a second input signal to said second processor, comprising:

a second actuator configured to provide tactile sensations in response to a second haptic feedback signal, and

said second image and said second haptic feedback signal based at least in part on a second information received from said first computer over said network and based at least in part on said second input signal.

104. (Previously Presented) A system as recited in claim 103 wherein said first force feedback device is coupled to a manipulandum configured to move in two degrees of freedom.

105. (Previously Presented) A system as recited in claim 104 wherein said first force feedback device is coupled to a third processor, said third processor in communication with said first processor includes a local controller that communicates with said first computer, a plurality of actuators for providing said tactile sensations, and at least one sensor for sensing positions of said manipulandum.

106. (Previously Presented) A system as recited in claim 104 wherein said manipulandum is manipulable by a finger of a user.

107. (Previously Presented) A system as recited in claim 105 wherein said haptic feedback signal includes a haptic feedback command that can be parsed by said local controller such that said controller can control said actuators in response to said haptic feedback command in a control loop with said sensors.

108. (Previously Presented) A system as recited in claim 103 wherein said first computer and said second computer communicate with at least one server computer over said network, wherein said information received from said first computer and said information received from said second computer are communicated via said server.

109. (Previously Presented) A system as recited in claim 103 wherein said first image includes a graphical object that can interact with a projectile.

110. (Previously Presented) A system as recited in claim 103 wherein said first image comprises a first graphical object and a second graphical object, said first graphical object having a location based, at least in part, on a position information received from said first force feedback

device, said first graphical object able to collide with said second graphical object said second graphical object having a location based at least in part on said first information received from said second computer.

111. (Previously Presented) A system as recited in claim 103 wherein said first image includes a graphical object having a location based, at least in part, on position information received from first second force feedback device, said graphical object able to collide with an obstruction displayed in said first image.

Claim 112. (Canceled)

113. (Previously Presented) A device as recited in claim 120 further comprising a visual display coupled to said processor, said visual display configured to display a first graphical object based at least in part on said first information.

114. (Previously Presented) A device as recited in claim 120 wherein said first information is received from a server computer over said network.

115. (Previously Presented) A device as recited in claim 120 wherein said first information is received from a client machine over said network.

116. (Previously Presented) A device as recited in claim 114 wherein said server computer and said processor communicate over said network using TCP/IP protocols.

Claims 117-119. (Canceled)

120. (Previously Presented) A device comprising:

a processor configured to:

receive a first information over a network comprising haptic feedback information and position information for a graphical object to be displayed,

update a visual display coupled to said processor based at least in part on said first

information;

generate a haptic feedback signal based at least in part on said haptic feedback information, said haptic feedback signal configured to cause a haptic feedback device to output a tactile sensation based at least in part on said haptic feedback signal and correlated with said updated visual display; and

transmit a second information over said computer network.

121. (Previously Presented) A computer-readable medium comprising program code to cause a processor to perform the steps of:

receive a first information over a network, said first information comprising haptic feedback information and position information for a graphical object displayed by said second computer;

update a visual display based at least in part on said first information;

provide a haptic feedback signal based at least in part on said haptic feedback information to a haptic feedback device, wherein said haptic feedback device outputs a tactile sensation based, at least in part, on said haptic feedback signal and correlated with said updated visual display; and

send a second information over said network.

122. (New) An apparatus, comprising:

a network interface;

a peripheral interface; and

a processor coupled to the network interface and the peripheral interface, the processor being associated with a first simulation of a virtual environment including a first virtual object, the processor configured to receive from the network interface a signal associated with a second virtual object within the virtual environment, the processor configured to send to the peripheral interface a signal associated with a haptic feedback based on a virtual interaction between the first virtual object and the second virtual object.

123. (New) The apparatus of claim 122, wherein:

the processor is configured to receive from the peripheral interface a signal associated with a position of a manipulandum, the processor is configured to send to the network interface a signal associated with the first virtual object based on the position of the manipulandum.

124. (New) The apparatus of claim 122, the processor being a first processor, wherein

the signal associated with the haptic feedback is configured to compensate within the first simulation for a delay between signals associated with the first virtual object and the signal associated with the second virtual object.

125. (New) The apparatus of claim 122, the processor being a first processor, wherein:

the virtual environment is defined by the first processor and a second processor in communication with the first processor over a network, the first processor defining the first simulation of the virtual environment, the second processor defining a second simulation of the virtual environment, the first simulation substantially corresponding to the second simulation.

126. (New) The apparatus of claim 122, the processor being a first processor, the signal associated with the haptic feedback being a first signal, the apparatus further comprising:

a manipulandum;

an actuator coupled to the manipulandum; and

a second processor coupled to the actuator and the peripheral interface, the second processor configured to receive the first signal from the peripheral interface, the second processor configured to send a second signal to the actuator based on the first signal, the actuator configured to provide haptic feedback based on the second signal.

127. (New) The apparatus of claim 122, the processor being a first processor, the apparatus further comprising:

a manipulandum having at least one degree of freedom;

an actuator coupled to the manipulandum;

a sensor configured to detect a position of the manipulandum in the at least one degree of freedom; and

a second processor coupled to the sensor and the peripheral interface, the second processor configured to send a position signal to the peripheral interface based on the position of the manipulandum,

the first processor configured to send to the network interface a signal associated with the first virtual object based on the position signal.

128. (New) The apparatus of claim 122, wherein:

the network interface, the peripheral interface and the processor are included within a video game console system, the first simulation and the second simulation being associated with a virtual game environment; and

the network interface being at least one of an Ethernet connection and a modem connection.

129. (New) The apparatus of claim 122, wherein:

the signal associated with the haptic feedback includes a high-level command, the high-level command configured to be interpreted by a local processor to implement a local force routine with a manipulandum.

130. (New) The apparatus of claim 122, wherein:

the signal associated with the haptic feedback includes a positional offset, the positional offset being associated with a difference between the first virtual object and the second virtual object within the first simulation.

131. (New) An apparatus, comprising:

a manipulandum having at least one degree of freedom;

an actuator coupled to the manipulandum;

a sensor configured to detect a position of the manipulandum in the at least one degree of freedom, the position of the manipulandum being associated with a first virtual object within a virtual environment; and

a local processor coupled to the actuator and the sensor, the local processor configured to receive from a host processor a signal associated with a virtual interaction between the first virtual object and a second virtual object within the virtual environment, the local processor configured to send a signal to the actuator based on the signal from the host processor, the virtual environment being defined by the host processor and a remote processor in communication with the host processor over a network.

132. (New) The apparatus of claim 131, wherein:

the local processor is configured to receive from the sensor a signal associated with a position of a manipulandum, the position of the manipulandum being associated with a position of the first virtual object within the virtual environment.

133. (New) The apparatus of claim 131, wherein:

the host processor is associated with a first simulation of the virtual environment;

the remote processor is associated with a second simulation of the virtual environment; and

the signal sent to the actuator is configured to compensate within the first simulation for a delay between signals associated with the first virtual object and the signal associated with the second virtual object.

134. (New) The apparatus of claim 131, wherein:

the virtual environment is defined by the host processor and the remote processor, the

first processor defining the first simulation of the virtual environment, the second processor defining a second simulation of the virtual environment, the first simulation substantially corresponding to the second simulation.

135. (New) The apparatus of claim 131, wherein:

the signal from the host processor includes a high-level command, the local processor configured to implement a local force routine based on the high-level command, the signal sent to the actuator being based on the local force routine.

136. (New) The apparatus of claim 131, wherein:

the host processor is associated with a first simulation of the virtual environment;

the remote processor is associated with a second simulation of the virtual environment; and

the signal from the host processor includes a positional offset, the positional offset being associated with a difference between the first virtual object and the second virtual object within the first simulation.

137. (New) A method, comprising:

providing a manipulandum having at least one degree of freedom;

providing an actuator coupled to the manipulandum;

providing a sensor configured to detect a position of the manipulandum in the at least one degree of freedom, the position of the manipulandum being associated with a first virtual object within a virtual environment; and

providing a local processor coupled to the actuator and the sensor, the local processor configured to receive from a host processor a signal associated with a virtual interaction between the first virtual object and a second virtual object within the virtual environment, the local processor configured to send a signal to the actuator based on the signal from the host processor,

the virtual environment being defined by the host processor and a remote processor in communication with the host processor over a network.

138. (New) The method of claim 137, wherein:

the local processor is configured to receive from the sensor a signal associated with a position of a manipulandum, the position of the manipulandum being associated with a position of the first virtual object within the virtual environment.

139. (New) The method of claim 137, wherein:

the host processor is associated with a first simulation of the virtual environment;

the remote processor is associated with a second simulation of the virtual environment; and

the signal sent to the actuator is configured to compensate within the first simulation for a delay between signals associated with the first virtual object and the signal associated with the second virtual object.

140. (New) The method of claim 137, wherein:

the virtual environment is defined by the host processor and the remote processor, the first processor defining the first simulation of the virtual environment, the second processor defining a second simulation of the virtual environment, the first simulation substantially corresponding to the second simulation.

141. (New) The method of claim 137, wherein:

the signal from the host processor includes a high-level command, the local processor configured to implement a local force routine based on the high-level command, the signal sent to the actuator being based on the local force routine.

142. (New) The method of claim 137, wherein:

the host processor is associated with a first simulation of the virtual environment;

the remote processor is associated with a second simulation of the virtual environment; and

the signal from the host processor includes a positional offset, the positional offset being associated with a difference between the first virtual object and the second virtual object within the first simulation.

143. (New) A method, comprising:

enabling a first simulation of a virtual environment on a first processor and a second simulation of the virtual environment on a second processor, the first processor being in communication with a haptic feedback device, the second processor being in communication with a haptic feedback device;

enabling the first processor to provide a signal to its haptic feedback device based on an interaction between a first virtual object and a second virtual object within the first simulation,

the interaction within the first simulation being based on a position signal from the haptic feedback device of the first processor and a signal associated with the second virtual object from the second processor; and

enabling the second processor to provide a signal to its haptic feedback device based on an interaction between the first virtual object and the second virtual object within the second simulation, the interaction within the second simulation being based on a position signal from the haptic feedback device of the second processor and a signal associated with the first virtual object from the first processor.

144. (New) The method of claim 143, further comprising:

enabling synchronization between the first simulation and the second simulation based, at least in part, on the signal to the haptic feedback device of the first processor and the signal to the haptic feedback device of the second processor.

145. (New) The method of claim 143, wherein:

the first processor is a first video-gaming console, the haptic feedback device associated with the first processor is a first controller; and

the second processor is a second video-gaming console, the haptic feedback device associated with the second processor is a second controller.

146. (New) The method of claim 145, wherein:

the first controller includes a manipulandum, the position signal from the first controller being based on a position of the manipulandum of first controller; and

the second controller includes a manipulandum, the position signal from the second controller being based on a position of the manipulandum of first controller.

147. (New) A system, comprising:

a video-gaming console having

a network interface;

a peripheral interface; and

a host processor coupled to the network interface and the peripheral interface, the host processor being associated with a first simulation of a virtual environment including a first virtual object, the host processor configured to receive from the network interface a signal associated with a second virtual object within the virtual environment, the host processor configured to send to the peripheral interface a signal associated with a haptic feedback based on a virtual interaction between the first virtual object and the second virtual object; and

a controller having

a manipulandum having at least one degree of freedom;

an actuator coupled to the manipulandum;

a sensor configured to detect a position of the manipulandum in the at least one degree of freedom, the position of the manipulandum being associated with the first virtual object within the virtual environment; and

a local processor coupled to the actuator, the sensor and the peripheral interface of

the video-gaming console, the local processor configured to receive the signal associated with the haptic feedback from the peripheral interface of the video-gaming console, the local processor configured to send a signal to the actuator based on the signal associated with the haptic feedback,

the actuator configured to provide haptic feedback to the manipulandum based on the signal from the local processor.